

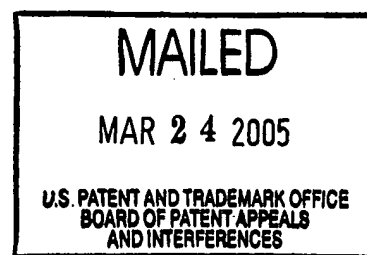
UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte CHUN-GEUN CHOI AND HONG-JAE KIM

Appeal No. 2005-0046
Application No. 09/531,005

HEARD: March 10, 2005



Before KRASS, BARRY, and SAADAT, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

A patent examiner rejected claims 1-10. The appellants appeal therefrom under 35 U.S.C. § 134(a).¹ We affirm-in-part.

¹The appellants also argue that "the Second Amendment After Final should have been entered." (Substitute Appeal Br. at 9.) Rather than by appeal to the Board of Patent Appeals and Interferences, however, such an issue should be settled by petition to the Director of the U.S. Patent and Trademark Office. See *In re Hengehold*, 440 F.2d 1395, 1403, 169 USPQ 473, 479 (CCPA 1971).

BACKGROUND

The invention at issue on appeal concerns televisions ("TVs") and monitors. (Spec. at 1.) As shown in Figures 1A and 1B of the appellants' specification,² a TV may allow color adjustment, volume control, and muting.³ A monitor may allow size adjustment, screen position adjustment, screen contrast or brightness adjustments, and muting. (*Id.* at 1-2.) Such video displays may feature buttons for displaying on-screen display ("OSD") menus. The appellants explain that each menu offers "items such as 'make screen larger or smaller', 'move screen up or down', and 'make sound louder or quieter'." (*Id.* at 2.)

As the number of adjustable functions has grown, the appellants opine that the "resulting multiplication and greater complexity of menus and sub-menus may confuse users or irritate them. As functions multiply, the time period for selecting an OSD menu item is lengthened since the user must repeatedly press arrow buttons to select an OSD menu item." (*Id.*)

² Figures showing the prior art shall be "designated by a legend such as 'Prior Art.'" M.P.E.P. § 608.02(g). Here, because Figures 1A and 1B show "a **known** TV menu system," (Spec. at 2 (emphasis added)), perhaps the Figures should be designated by such a legend.

³Figure 1B shows a TV screen "after AUDIO MUTE . . . is selected." (Spec. at 4.) The specification explains, however, that when the "screen 4 as shown in Fig. 1B is displayed, . . . audio sound is sent out through a speaker." (*Id.*) We are puzzled why the speaker is emitting sound when muting has been selected.

Accordingly, the appellants' video display features "user-selected hotkey functions. . . ." (*Id.*, abs.) A user selects hotkey to invoke a frequently accessed item from a menu. (Spec. at 3.) "Information on a menu item is selected by a user from an OSD menu which the video display . . . has stored in a memory unit as hotkey button information. The information is read from the memory unit to be executed whenever the user selects a given hotkey button." (*Id.*, abs.) They assert, "[t]he hotkey button information may be re-set according to the user's desires, so that the user controls the functions of the video display apparatus with more ease and convenience." (*Id.*)

A further understanding of the invention can be achieved by reading the following claims.

1. A video display control apparatus having hotkeys for a user to invoke and control a function of a video display apparatus, said function represented by a menu item from an on-screen display (OSD) menu, said video display control apparatus comprising:

 a button unit comprising a hotkey button adapted for generating a key signal corresponding to a menu item of an OSD menu;

 a memory unit coupled to the button unit, and adapted for storing information concerning OSD menu items;

 an OSD unit for outputting an OSD character display signal to a video processing unit in response to said key signal, whereby actuation by a user of said hotkey button causes a screen display of one or more OSD characters; and

 a control unit for receiving said key signal from said button unit, for reading information concerning an OSD menu item stored in the memory

unit when said key signal is received, and for thereupon sending a control signal to the video display apparatus to control a function thereof.

5. A method of controlling a function of a video display apparatus, said method comprising the steps of:

(1) when a user selects a menu item of an on-screen display (OSD) menu screen by causing generation of a hotkey button signal, determining whether a hotkey signal setting exists therefor;

(2) when no hotkey signal setting exists therefor, executing a control function in response to the hotkey button signal; and

(3) when a hotkey signal setting exists therefor, setting the user-selected menu item of the OSD menu screen responsively to the hotkey button signal.

7. A method of controlling a function of a video display apparatus, said method comprising the steps of:

(1) when a user selects a hotkey button, thereby generating a present-time hotkey button signal, determining whether a stored hotkey button signal identical to the present-time hotkey button signal is stored in a memory unit;

(2) if a stored hotkey button signal is identical to the present-time hotkey button signal, executing a control function in response to the stored hotkey button signal; and

(3) if no stored hotkey button signal is identical to the present-time hotkey button signal, executing a default control function.

8. A television (TV) system, comprising:

a TV display having a plurality of functions, said TV display being capable of displaying an on-screen display (OSD) menu having a plurality of menu items respectively corresponding to individual ones of said plurality of functions;

a memory unit adapted for storing information concerning OSD menu items;

means operable by a user for selecting one of said plurality of menu items;

means for generating a selection signal corresponding to said one of said plurality of menu items in response to selection thereof by the user;

control means for controlling said plurality of functions;

receiving means associated with the TV display for receiving said selection signal;

reading means coupled to said receiving means for fetching and reading, from the memory unit, information concerning an OSD menu item stored in the memory unit, when said selection signal is received, said information corresponding to said selection signal; and

sending means coupled to said reading means for sending a control signal to said control means, said control signal corresponding to said fetched and read information concerning the OSD menu item, whereby a function of the TV display is controlled in response to the control signal and in response to said information fetched and read from the memory unit concerning the OSD menu item.

Claims 1-10 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,211,870 ("Foster") and U.S. Patent No. 6,414,700 ("Kurtenbach").

OPINION

Our opinion addresses the claims in the following order:

- claims 1-4 and 8-10
- claims 5-7.

A. CLAIMS 1-4 AND 8-10

Rather than reiterate the positions of the examiner or the appellants *in toto*, we focus on a point of contention therebetween. Admitting that "Kurtenbach fails to teach an OSD unit for outputting an OSD character display signal to a video processing unit in response to a said key signal, whereby actuation by a user of said hotkey button causes a screen display of one or more OSD characters," (Examiner's Answer at 4), the examiner asserts, "Foster teaches an editing system wherein the user can essentially create a customized hotkey (col. 10, lines 55 - 65). This customization [sic] allows the user to actuate a personal hotkey while causing the screen to display one or more OSD characters." (*Id.*) The appellants argue, "where in the references is there a disclosure of the button unit, memory unit, OSD unit and control unit recited in claim 1. . . ?" (Reply Br. at 3.)

In addressing the point of contention, the Board conducts a two-step analysis. First, we construe the claim at issue to determine its scope. Second, we determine whether the construed claim would have been obvious.

a. Claim Construction

"Analysis begins with a key legal question — *what is the invention claimed?*" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). In answering the question, "[t]he Patent and Trademark Office (PTO) must consider all claim limitations when determining patentability of an invention over the prior art." *In re Lowry*, 32 F.3d 1579, 1582, 32 USPQ2d 1031, 1034 (Fed. Cir. 1994) (citing *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983)).

Here, claim 1 recites in pertinent part the following limitations:

a button unit comprising a hotkey button adapted for generating a key signal corresponding to a menu item of an OSD menu;

...

an OSD unit for outputting an OSD character display signal to a video processing unit in response to said key signal, whereby actuation by a user of said hotkey button causes a screen display of one or more OSD characters; and

a control unit for receiving said key signal from said button unit, for reading information concerning an OSD menu item stored in the memory unit when said key signal is received, and for thereupon sending a control signal to the video display apparatus to control a function thereof.

Claim 8 recites similar limitations in a means-plus-function format. Considering these limitations, claims 1 and 8 require a hotkey for generating a signal corresponding to an item of an OSD menu, a unit for causing a screen to display at least one OSD character

in response to the signal, and a controller for controlling a video display in response to the same signal.

b. Obviousness Determination

Having determined what subject matter is being claimed, the next inquiry is whether the subject matter would have been obvious. "In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)). "A *prima facie* case of obviousness is established when the teachings from the prior art itself would . . . have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)).

Here, Foster discloses "[a] portable hand-held remote control unit device . . . utilized for selecting designated functions in a plurality of remotely controllable multimedia processing units," abs., ll. 1-4; "[m]ost TVs, VCRs, stereo receivers, CD players, laser disk players and cable decoders are self-contained multimedia processing units." Col. 4, ll. 26-30. "The programmable remote control unit 200 includes a processor 260. . . . In conjunction with the processor 260, the programmable

remote control unit 200 has a short term memory 270 and a long term memory 250. . . . " Col. 5, ll. 1-6. "The programmable remote control unit 200 further includes . . . an I/O processor 230. . . ." *Id.* at ll. 14-16. Furthermore, a "touch screen overlay 222, in conjunction with the graphic display 221, allows the programmable remote control unit 200 to be programmed with soft keys." *Id.* at ll. 46-48.

"When powered on, the programmable remote control 200 unit preferably automatically loads one of the stored screen objects. The user may scroll through loaded screen objects. . . ." Col. 12, ll. 2-6. "Referring now to FIG. 11, there is shown a screen shot . . . of an exemplary custom screen object. This screen object is entitled 'Dad'. . . ." Col. 11, ll. 15-17. "The Dad screen object has two soft key objects and corresponding soft keys 1161, 1162." *Id.* at ll. 19-21. We find that the Dad screen object is an OSD menu offering the two soft key objects as menu items.

"The soft key object 1161 has been programmed with a series of commands for turning on the TV and cable box, then tuning the TV to receive from the cable box, then tuning the cable box to Dad's favorite cable channel, ESPN. The soft key object 1162 has been programmed with a series of commands for turning on the stereo receiver, then tuning the stereo receiver to Dad's favorite radio station, KTWV. " *Id.* at ll. 28-34.

When one of the remote control's "soft keys . . . [is] pressed," col. 12, ll. 11-12, we find that it sends a signal to the I/O processor to indicate that the key was pressed. See Fig. 1 (showing the selection signal as an arrow from the display to the I/O Processor). For example, when the soft key object 1161 is pressed, we find that the I/O processor receives a signal indicating that the soft key labeled "ESPN," Fig. 11, has been selected. As aforementioned, pressing the soft key object 1161 also generates a series of commands to control the TV and cable box.

The examiner has not shown, however, that the same signal sent from the soft key object 1161 to the I/O processor also causes a screen to display at least one OSD character in response thereto. Absent a teaching or suggestion of a hotkey for generating a signal corresponding to an item of an OSD menu, a unit for causing a screen to display at least one OSD character in response to the signal; and a controller for controlling a video display in response to the same signal, we are unpersuaded of a *prima facie* case of obviousness. Therefore, we reverse the obviousness rejection of claim 1; of claims 2-4, which depend therefrom; of claim 8; and of claims 9 and 10, which depend therefrom.

B. CLAIMS 5-7

The examiner alleges, "Kurtenback [sic] and Foster teach the rationale for claims 5, 6, and 7 in rejected claim 1." (Examiner's Answer at 5.) The appellants ask, "where in references cited is there a disclosure of the three steps recited in method claim 5 or the three steps recited in method claim 7?" (Reply Br. at 4.)

"For each rejection under 35 U.S.C. 103, the examiner's answer . . . shall . . . state the ground of rejection and point out where each of the specific limitations recited in the rejected claims is found in the prior art relied upon in the rejection. . . ." M.P.E.P. § 1208. "[W]here there are questions as to how limitations in the claims correspond to features in the prior art . . . , the examiner shall compare at least one of the rejected claims feature by feature with the prior art relied on in the rejection. The comparison shall align the language of the claim side-by-side with a reference to the specific page, line number, drawing reference number, and quotation from the prior art, as appropriate." *Id.*

Here, the examiner declines to point out where each limitation recited in claims 5-7 is found in the prior art upon which he relies. He also declines to compare any of these claims feature-by-feature with that prior art. Claims 5-7 recite limitations different from those of claim 1. For example, claim 5 specifies "determining whether a hotkey signal setting exists," "executing a control function in response to the hotkey

button signal," "setting the user-selected menu item of the OSD menu screen responsively to the hotkey button signal." For its part, claim 7 specifies "determining whether a stored hotkey button signal identical to the present-time hotkey button signal is stored in a memory unit" and "executing a default control function." We will not "resort to speculation," *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), as to the examiner's position. Furthermore, although the examiner alleges, "Kurtenback [sic] and Foster teach the rationale for claims 5, 6, and 7 in rejected claim 1," (Examiner's Answer at 5), we did not find that rationale persuasive for that claim. Therefore, we reverse the rejection of claim 5; of claim 6, which depends from claim 5; and of claim 7.

CONCLUSION

In summary, the rejection of claims 1-10 under § 103(a) is reversed.

Edna Kr


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